

REMARKS

The Examiner rejected claims 1-12 and 14-19 under 35 U.S.C. § 103(a). In view of the amendments and remarks contained herein, reconsideration and further examination is respectfully requested.

Claim rejections under 35 USC § 103(a)

The Examiner rejected claims 1-12 and 14-19 under 35 U.S.C. § 103(a) as being unpatentable over the ExtremeWare Software User Guide, by Extreme Networks, Inc., in view of Chow et al., U.S. Pat. No. 7,289,428. Specifically, in rejecting the “flush the forwarding database” element of claim 1, the Examiner cites pages 10-17 and 10-18 of the ExtremeWare reference, which describe Figure 10-8. Figure 10-8 displays a master and a standby BlackDiamond switch, and four Summit switches providing redundancy to the BlackDiamond switches. In describing the functionality of the switches, the ExtremeWare reference states that “[t]he Summit switches... *sense* when a master/slave transition occurs and flush FDB entries...” This is in stark contrast to amended claim 1, which states that the master switch is configured to *notify* a plurality of end devices to flush the end device forwarding database.

Providing a notification from the master switch to an end device to flush its forwarding database is a nonobvious improvement upon the prior art. The notification enables an end device to be informed of network failures that the end device would otherwise be unable to detect. For example, the end device may be informed of network failures located deep within the network that do not directly impact the end device. See specification at page 20, lines 13-15. A person of ordinary skill in the art would clearly understand that a network failure which does not directly impact a network end device may not be sensed by the end device, as required by the

ExtremeWare reference. Therefore, claim 1 provides a non-obvious improvement over the prior art by more quickly informing end devices of network failures.

The notification sent to an end device is further shown as a non-obvious improvement over the prior art by the ExtremeWare reference itself, which, in fact, *teaches away from the invention*. For example, page 10-17 of the ExtremeWare reference describes the Summit switches as being “ESRP-aware” and page 10-2 states that ESRP-aware switches are switches manufactured by Extreme Networks. Furthermore, page 10-2 goes on to state that “[i]f Extreme switches running ESRP are connected to layer 2 switches that are not manufactured by Extreme Networks... the fail-over times... may appear longer... [a]s such... **recovery times vary**.” [emphasis added]. Quite contrastingly, aspects disclosed in the specification are designed to prompt a quick recovery from network failures of end devices *not manufactured by ExtremeWare* and running non-ESRP protocols. For instance, specification page 17, lines 13-17 describes recovering from failures when protocols such as HSRP and VRRP are used on the Carrier/ISP connection. Additionally, Page 20, line 15, to Page 21, line 4 describes a recovery using “typical” end devices which only implement ARP to update a forwarding database. Throughout the description, the switches are described as only relying upon ARP. A person of ordinary skill in the art would clearly understand that the switches do not also rely upon “ESRP-aware” functionality for network failure recovery. Therefore, aspects of the amended claims relating to the master switch notification comprise a further non-obvious improvement over the prior art by providing non-ESRP-aware devices and devices not manufactured by ExtremeWare an increased ability to recover from network failures, removing the varying recovery times.

The Examiner fails to provide why it would have been obvious for the master switch to provide a notification to the end devices. Furthermore, the Examiner fails to provide why it

would have been obvious to flush an end device forwarding database and rebroadcast for a new path from the end device when a network failure does not directly impact the end device. Additionally, no reasoning is given by the Examiner why it would have been obvious to flush the forwarding database and rebroadcast for a new path from non-ExtremeWare end devices and end devices not running ESRP-aware software. Within the office action response, the Examiner appears to inappropriately correlate the network failure to a master/standby switch that is performing the flush and rebroadcast. For example, on page 4, the Examiner states that “it would have been obvious... to have one of said ports flush a layer 2 forwarding database and rebroadcasts [sic] for a new path if *that specific switch* has not transmitted for some time (standby mode)...” In claim 1, however, the end device flushes and rebroadcasts based on a network failure as determined by the master switch. It is not the master/standby switch itself which is performing the flush and the rebroadcast.

For the reasons stated above and the amendments made to the claims, Applicants submit that the rejections under 35 U.S.C. 103 have been rendered moot. However, in the alternative, Applicant submits that the Examiner has not met the burden of showing that it would have been obvious to modify the ExtremeWare reference and/or combine the ExtremeWare and Chow references.

In order to support a rejection under 35 U.S.C. 103(a), the Examiner must give a clear articulation of the reasons why the claimed invention would have been obvious. The Supreme Court in *KSR v. Teleflex* noted that the analysis supporting a rejection under 35 USC 103 should be made explicit. “Rejections on obviousness cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR v. Teleflex*, 550 U.S. at ____ (2006).

In this case, none of the available rationales for supporting an obviousness finding have been met by the examiner; rather, mere conclusory statements about what is contained in the prior art, and that it would have been obvious to modify or combine those elements, is all that can be found in the Examiner's reasons for modifying the ExtremeWare reference, combining the ExtremeWare and Chow references, and supporting the rejection under 35 U.S.C. 103. For example, the sole reason given by the Examiner to modify the ExtremeWare reference is "to efficiently determining [sic] new paths [and] in order to provide redundant routing services to users in case of a network failure." Likewise, the sole reason given by the Examiner for combining the ExtremeWare and Chow references is "to efficiently and correctly provide redundancy in a network." Office Action at p. 6. This is precisely the type of conclusory statement that the Supreme Court deemed insufficient and cannot support an obviousness determination under KSR or the PTO guidelines for rejections under Section 103. For example:

1. The Examiner has not identified nor *resolved* any of the Graham factual inquiries, a necessary pre-requisite to a finding based on obviousness;
2. The Examiner has not indicated that a combination of old elements from the prior art would function as it did separately;
3. The Examiner has not indicated that one of skill in the art would have recognized that the results of the combination were predictable;
4. The Examiner has not indicated that one of skill in the art could have substituted one known element for another, and the results of the substitution would have been predictable;
5. The Examiner has not indicated that the prior art contained a base device upon which the claimed invention can be seen as an improvement;

6. The Examiner has not indicated that the prior art contained a comparable device that is not the same as the base device that was improved in the same way as the claimed invention;

7. The Examiner has not indicated the one of skill in the art could have applied the known improvement technique in the same way to the base device and the results would have been predictable to one of skill in the art;

8. The Examiner has not indicated that one of skill in the art would have recognized that applying a known technique would have yielded predictable results and resulted in an improved system.

9. The Examiner has not indicated that there was market forces or design incentives which would have prompted adaptation of the known device;

10. The Examiner has not indicated that the differences between the claimed invention and the prior art were encompassed in known variations or in a principle known in the prior art;

11. The Examiner has not indicated that one of skill in the art, in view of the identified design incentives or other market forces, could have implemented the claimed variation of the prior art, and the claimed variation would have been predictable to one of skill in the art; and

12. Overall, the Examiner has not, under the Graham factual inquiries, presented any findings that would otherwise explain the conclusion of obviousness. *See generally*, PTO guidelines on obviousness determinations in light of Supreme Court KSR decision.

In fact there is no reasoning presented by the Examiner as to why one of skill would modify the ExtremeWare reference or combine the ExtremeWare and Chow references to arrive

at the claims as currently presented, an analysis that is still required to support a finding of obviousness under section 103. *See KSR Slip Opinion* at 14. Applicants respectfully request that the rejections based on 35 U.S.C. 103(a) be withdrawn.

Applicants have made a diligent effort to place the now pending claims in a condition for allowance. However, should there remain unresolved issues that require adverse action, it is respectfully requested that the Examiner telephone Shane Percival, Applicants' Attorney at 720-536-4906 so that such issues may be resolved as expeditiously as possible.

For these reasons, and in view of the above amendments, this application is now considered to be in condition for allowance and such action is earnestly solicited.

Respectfully Submitted,

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/Shane Percival/

Dated

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